

## THE INVENTOR CLAIMS:

1. A tube assembly for specimen analysis, comprising:

2           a tube having a pipette portion extending from a lower end  
portion thereof, said pipette portion having a passage  
4 therethrough, and

                  a separator having an upper portion sealingly engaged in  
a lower portion of the tube, said tube having a reduced lower  
portion defining a passage, whereby upon the filling of the tube to  
a predetermined level and the centrifuging thereof, centrifuged  
liquid passes through said separator passage to provide a specimen  
of predetermined volume defined below the separator and above a  
lower end of said reduced lower separator portion.

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2. A tube assembly according to Claim 1, wherein:

2           said separator has a generally funnel configuration, and an  
air pocket is defined between the tube, the separator upper portion  
4           and an end of the reduced lower separator portion.

3. A tube assembly according to Claim 2, wherein a  
predetermined volume of specimen to be expressed is defined by said  
air pocket.

4. A tube assembly according to Claim 3, wherein the  
2           predetermined volume of specimen comprises 0.1 ml.

5. A tube assembly according to Claim 1, wherein said  
2           separator is sealingly engaged by force-fitting thereof in a  
tapered portion of the tube.

6. A tube assembly according to Claim 1, wherein:

2 specimen liquid and sediment are automatically mixed during  
centrifuging by operation of the separator and an air pocket  
4 created thereby.

7. A tube assembly according to Claim 1, wherein said tube  
is tapered to narrow toward its lower portion and said separator is  
force-fitted in a lower portion of the tube.

8. A tube assembly according to Claim 1, wherein a bead is  
2 disposed about an upper open end of the tube for sealing engagement  
with a cap to close the tube.

9. A tube assembly according to Claim 1, wherein said tube  
2 pipette portion passage is tapered inwardly toward its opening.

10. A tube assembly according to Claim 1, and further  
2 comprising:

a plug for sealing engagement in said pipette passage,

4 said plug being disposed in a cup adapted to engage a lower  
portion of the tube when the plug is inserted in said pipette  
6 passage.

11. A tube assembly according to Claim 10, wherein:

4 upon removal of said plug from the pipette passage, a  
limited lowering of pressure within the tube tends to retain liquid  
from dropping through the pipette passage.

## 12. A tube assembly for specimen analysis, comprising:

2 a tube having a pipette portion extending from a lower end  
portion thereof, said pipette portion having a passage  
4 therethrough,

a plug for sealing engagement in said pipette passage,

6 a cap for sealingly closing an upper open end portion of  
the tube, and

10 a separator having an upper portion sealingly engaged in  
the tube, said tube having a reduced lower portion defining a  
12 passage, whereby upon the filling of the tube to a predetermined  
level and the centrifuging thereof, centrifuged liquid passes  
through said separator passage to provide a specimen of  
predetermined volume defined below the separator and above a lower  
14 end of the reduced lower separator portion for expressing thereof  
upon removal of said plug.

13. A tube assembly according to Claim 12, wherein:

2           said separator has a generally funnel configuration, and an  
air pocket is defined between the tube, the separator upper portion  
4           and an end of the reduced lower separator portion.

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14. A tube assembly according to Claim 12, wherein said  
predetermined volume of specimen comprises 0.1 ml.

15. A tube assembly according to Claim 13, wherein:

2           specimen liquid and sediment are automatically mixed during  
centrifuging by operation of the separator and an air pocket  
4           created thereby.

16. A tube assembly according to Claim 12, wherein said  
2 tube is tapered to narrow toward its lower portion and said  
separator is force-fitted in a lower portion of the tube.

17. A tube assembly according to Claim 12, wherein a bead  
is disposed about an upper open end of the tube for sealing  
engagement with said cap.

18. A tube assembly according to Claim 12, wherein said  
2 plug is disposed in a cup adapted to engage a lower portion of the  
tube when the plug is inserted in said pipette passage.

19. A tube assembly according to Claim 18, wherein:

2           upon removal of said plug from the pipette passage, a  
          limited lowering of pressure within the tube tends to retain liquid  
4           from dropping through the pipette passage.

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20. A tube assembly according to Claim 1, and further  
comprising:

          a plug adapted to seat about said pipette passage to seal  
the passage,

6           a spring disposed between the plug and the separator to  
urge the plug to close the pipette passage, and

8           a pin on said plug and extending through and outwardly from  
the pipette passage,

10          whereby a specimen is dispensed by urging said pin against  
a specimen holder to displace the plug against the urging of the  
spring.

21. A tube assembly according to Claim 20, wherein said  
2 spring is an helical tapered spring.

22. A tube assembly according to Claim 20, wherein said  
2 plug is of at least partially spherical configuration.

23. A tube assembly according to Claim 20, wherein said  
pin extends to an upper end of the pipette passage to facilitate  
passage of specimen through the passage.

24. A tube assembly according to Claim 1, wherein:

2 said separator has a lower portion of reduced diameter  
defining a passage therethrough, and

4 said separator is of generally hemispherical configuration  
to adapt the separator to receive a generally hemispherical probe  
6 of an apparatus for the drawing of specimen via a passage through  
the probe for automatic processing.

25. A tube assembly according to Claim 24, wherein:

2           an upper edge portion of said generally hemispherical  
separator is tapered to a reduced thin edge portion to engage an  
4           inner wall of the tube to prevent specimen sediment from entering  
between the separator and the tube wall.

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